



Rubicon Technology

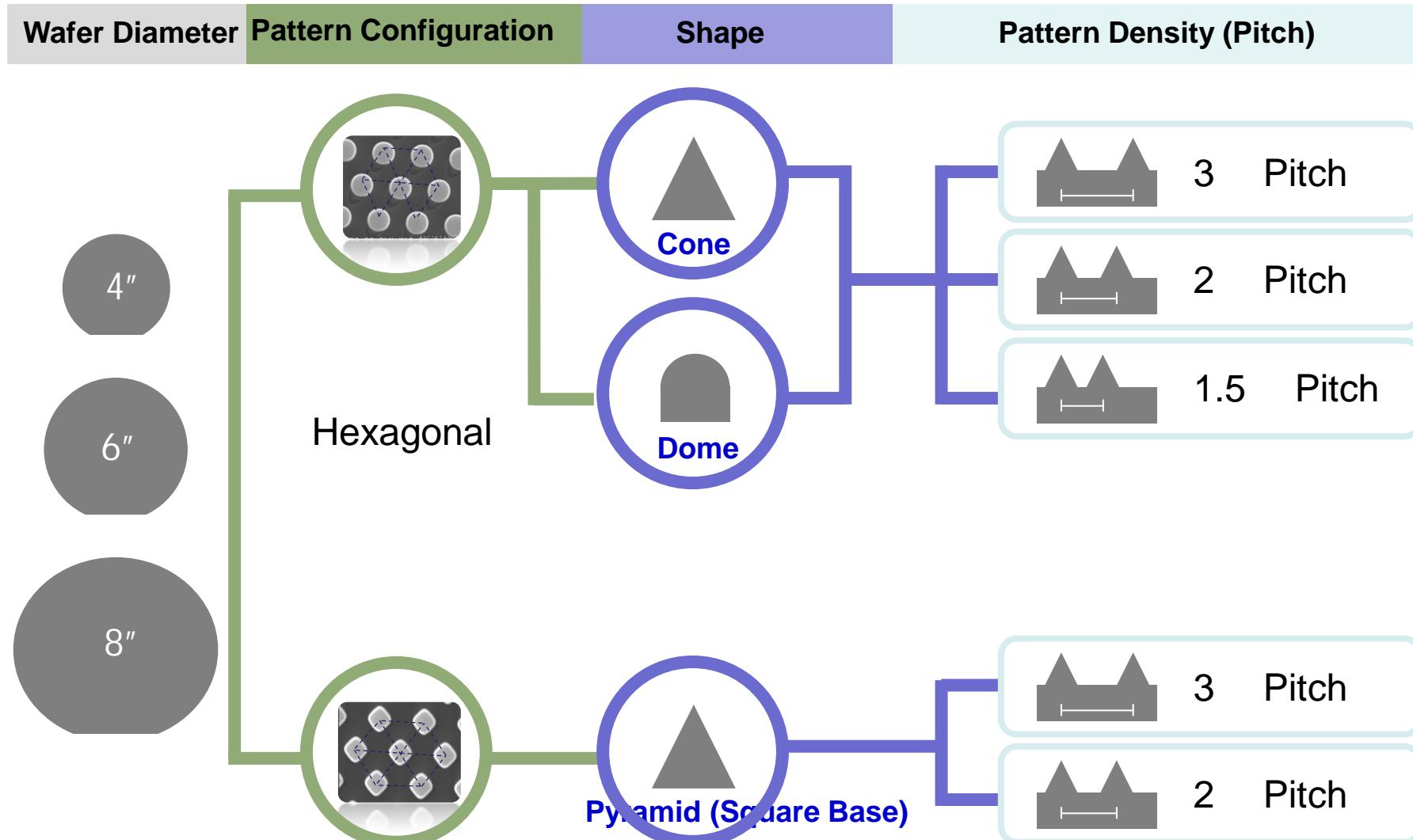
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Patterned Sapphire Substrates

PRODUCT MATRIX

Product Matrix

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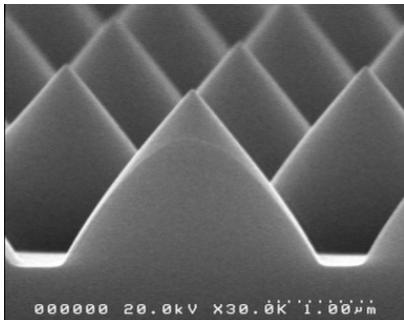
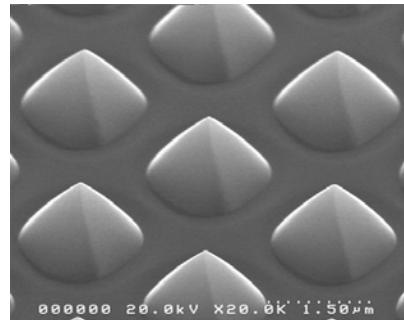
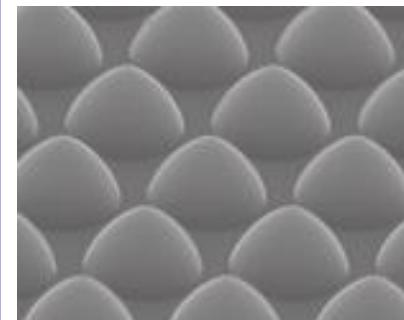
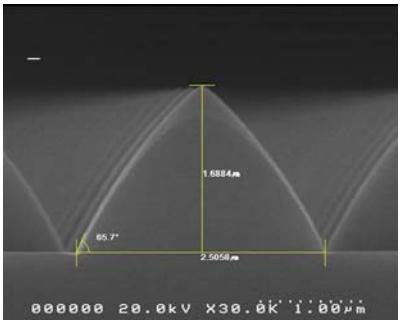
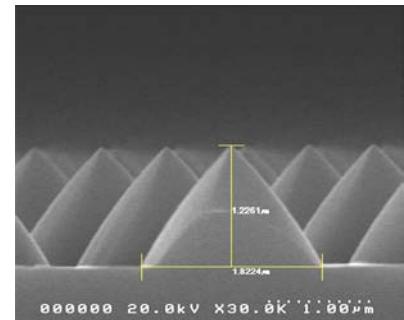
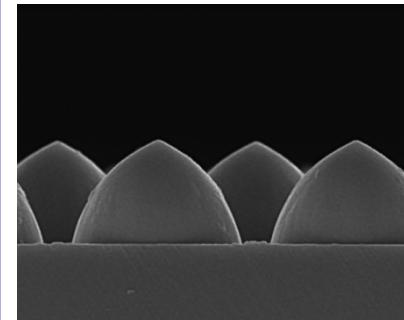
Design of Pattern

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	Cone or Dome	Square Pyramid	Customization
Geometry			
Description	<ul style="list-style-type: none">• Hexagonal Configuration• Circular hexagon: cone or dome• Square hexagon: pyramid		Other custom designs available upon request
Hexagon Orientation (with respect to Flat or Notch)			

Design of Shape

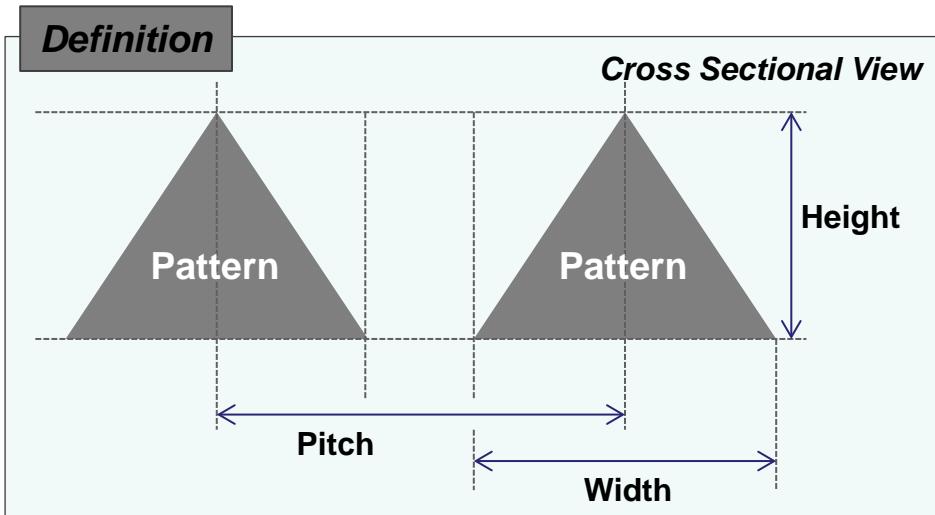
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	Cone	Square Pyramid	Dome
Top View	 000000 20.0kV X30.0K 1.00μm	 000000 20.0kV X20.0K 1.50μm	
Cross Sectional View	 000000 20.0kV X30.0K 1.00μm 65.7° 1.6884μm 2.5058μm	 000000 20.0kV X30.0K 1.00μm 1.3261μm 1.5224μm	

Library of Standard Patterns

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- Large diameter substrate patterning capability
- Sub-micron patterning capability
- Tight dimensional tolerance
- Smallest edge exclusion zone – more usable area



- Currently available pattern dimensions
 - Pitch : 3 µm, 2 µm & 1.5 µm
 - Width : 1.3 ~ 2.8 µm
 - Height : 0.65 ~ 2.0 µm
 - Pitch under 1 µm available on demand
- Dimensional tolerance down to ± 0.1 µm
- Edge exclusion down to 1 mm
- The table below shows some samples of the currently available standard patterns

Pitch	Width	Height
3	2.4	1.6
3	2.6	2.0
2	1.6	1.1
2	1.6	1.3
1.5	1.2	0.75

Unit :

Base Substrate Options

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- Diameter: 100, 150, 200 mm
- M-tilt: 0.0 to 0.5°, with tight tolerance ($\pm 0.03^\circ$)
- Global Flatness: GBIR, GFLR, GF3D etc.
- Site Flatness: SBIR, SFQR etc.
- Orientation Flat and Notch: SEMI, JEITA, or Custom
- Thickness: Standard or Custom
- Lasermark format : Standard or Custom